



Criminal Intelligence Unit PUBLIC BULLETIN

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Cleaning Fentanyl Spills with OxiClean™

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Law enforcement in Ohio who face opiate encounters are now being presented with a new option of what to do with a fentanyl spill. Previous research has shown the chemical sodium percarbonate (SPC)¹ oxidizes and breaks down fentanyl. Scientists with the Department of Chemistry and the Ohio Attorney General's Center for the Future of Forensic Science at Bowling Green State University performed an experiment with a household product, OxiClean™ Versatile Stain Remover, which contains the same chemical agent. The BGSU study, currently in preparation for publication, was designed to model a chemical spill and use OxiClean™ and a scrubbing action with a paper towel². It was found and verified through instrumental analysis that OxiClean™ can be used to effectively clean fentanyl spills. Although other brand name detergents and generic versions of OxiClean™ were not tested, any detergent with SPC should work in similar fashion.

Instructions for Making OxiClean™ Cleaning Solution²

Please Note: Time studies have not been completed, so the OxiClean™ solution should be prepared fresh before use.

Supplies Needed:

- OxiClean™ Versatile Stain Remover
- Spray bottle with gradients up to 500 mL
- Water

Personal Protective Equipment (PPE):

- Double gloves
- Disposable lab coat
- Particulate mask and goggles

Spill Clean Up Instructions

1. Wear appropriate PPE (referenced above).
2. Add one teaspoon full of powder OxiClean™ to 500 mL water.
3. Shake gently until all powder is in solution.
4. Completely cover spill with spray.
5. Within 15 minutes, scrub with a paper towel until dry (solution evaporates over time and this decreases the effectiveness of decontamination).
6. All PPE (except goggles) and paper towels must be disposed of in a biohazardous waste bin.



Image Source: Ohio BCI Laboratory



Image Source: <http://www.oxiclean.com/en/AllProducts/Stain-Fighters/Products/OxiClean-Versatile-Stain-Remover>

Sources:

¹Qi, Lihong; Cheng, Zhenxing; Zuo, Guomin; Li, Shanmao and Fan, Qiping. Oxidative Degradation of Fentanyl in Aqueous Solutions of Peroxides and Hypochlorites. *Defence Science Journal* 2011, 61(1): 30-35.

²Prevention of Occupational Exposure to Fentanyl and Fentanyl-like components: Elbow grease and OxiClean™. * Travis Worst, PhD, Department of Chemistry, Bowling Green State University, Noah M. Froelich, Department of Chemistry, Bowling Green State University, Jon E. Sprague, PhD, Ohio Attorney General's Center for the Future of Forensic Science, Bowling Green State University, Bowling Green, Ohio. *Submitted to the American Academy of Forensic Science 2018 annual meeting, pending acceptance.

Disclaimer: As a matter of public safety, these findings are being shared prior to the official publication of the research by the Ohio Attorney General's Center for the Future of Forensic Science at Bowling Green State University. Please remember that fentanyl and related compounds are extremely dangerous and should always be handled with extreme caution.



About BCI CIU

The Criminal Intelligence Unit consists of Criminal Intelligence Analysts and a Criminal Intelligence Analyst Supervisor. Analysts are located in BCI London headquarters, as well as regional offices in Youngstown, Bowling Green and Richfield. The members receive and fulfill requests from BCI Agents, local, state, federal law enforcement agencies and task forces. Our mission is to predict and expose criminal activity in order to prevent, eliminate or neutralize the activity.

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